

## **Space Weather Workshop**

Omni Interlocken Hotel – Broomfield, CO

April 26 – 29, 2016

### **Poster Abstracts**

Posters may be on display from Tuesday morning through Thursday afternoon. We request that authors be in attendance at their posters during the poster session on the day indicated below.

### **Solar and Interplanetary Research and Applications (Tuesday)**

**Kitiashvili, Irina** (NASA ARC/BAERI)

Poster Number: S1

Poster - Data Assimilation Approach to the Solar Cycle Prediction

**Kosovichev, Alexander** (New Jersey Institute of Technology)

Poster Number: S2

Poster - Solar-Cycle Evolution of Subsurface Flows and Magnetic Fields

**McFadden, Robert** (Boston College)

Poster Number: S3

Poster - Preserving a Unique Archive for Long-Term Solar Variability Studies

**Miao, Juan** (National Space Science Center, Chinese Academy of Sciences)

Poster Number: S4

Poster - New Sunspot Number Series and the Prediction of Solar Cycle 25

**Bamba, Yumi** (Japan Aerospace Exploration Agency)

Poster Number: S5

Poster - A Flare Trigger Model Based On Satellite Observations

**Kubo, Yuki** (National Institute of Information and Communications Technology)

Poster Number: S6

Poster - Verification of Operational Solar Flare Forecast in RWC Japan

**Leka, KD** (NorthWest Research Associates (NWRA))

Poster Number: S7

Poster - The Discriminant Analysis Flare Forecasting System (DAFFS)

**Nita, Gelu** (New Jersey Institute of Technology)

Poster Number: S8

Poster - Real-Time Detection of Solar Transient Events Using Higher Order Statistical Estimators

**Sadykov, Viacheslav** (New Jersey Institute of Technology)

Poster Number: S9

Poster - Interactive Multi-Instrument Database for Studying Solar Flares

**Thiemann, Edward** (Laboratory for Atmospheric and Space Physics)

Poster Number: S10

Poster - A Lumped Element Thermal Model for Solar Flare Light Curves in the EUV

**Yarborough, Amelia** (Earth to Sky Calculus)

Poster Number: S11

Poster - Rads on a Plane

**Molina, Ferris** (Earth to Sky Calculus)

Poster Number: S12

Poster - The Transcontinental Space Weather Balloon Experiment

**Schultz, Jamie** (Earth to Sky Calculus)

Poster Number: S13

Poster - Using Microbes as Biological Radiation Sensors

**Tobiska, W. Kent** (Space Environment Technologies)

Poster Number: S14

Poster - Results from Measuring Atmospheric Radiation on Aircraft

**Copeland, Kyle** (FAA Civil Aerospace Medical Institute)

Poster Number: S15

Poster - CARI-7: Extending CARI to Higher Altitudes

**Young, Shawn** (AFRL/RVBXR)

Poster Number: S16

Poster - Comparison of Solar Energetic Particle Flux Mapping Models

**DeLuca, Edward** (Harvard-Smithsonian Center for Astrophysics)

Poster Number: S17

Poster - An EUV Wide-Field Imager and Spectrometer for the ISS

**Kim, Yeon-Han** (Korea Astronomy and Space Science Institute (KASI))

Poster Number: S18

Poster - A Prestudy for the Development of a Compact Coronagraph

**Bisi, Mario** (Science & Technology Facilities Council – Rutherford Appleton Laboratory)

Poster Number: S19

Poster - Preliminary Observations of Heliospheric Faraday Rotation of a CME Using LOFAR

**Chang, Oyuki** (UNAM)

Poster Number: S20

Poster - Initial Assessment of MEXART Single-Site IPS Power Spectra Analysis for Space-Weather Products

**Jackson, Bernard** (University of California, San Diego)

Poster Number: S21

Poster - Space Weather Forecasting Using Remotely-sensed Heliospheric IPS Data Sets From Around the World – an Inclusion of MEXART and BSA Pushchino Data into the UCSD STELab IPS Tomography

**Plunkett, Simon** (Naval Research Laboratory)

Poster Number: S22

Poster - Capabilities of a Global 3D MHD Model for Monitoring Extremely Fast CMEs

**Kim, Tae** (University of Alabama in Huntsville)

Poster Number: S23

Poster - Solar Wind Modeling with Multi-Scale Fluid-Kinetic Simulation Suite

**MacDonald, Gordon** (New Mexico State University)

Poster Number: S24

Poster - The Sensitivity of Coronal Structure to Changes in the Flux Distribution in Active Regions

**Lindsey, Charles** (NorthWest Research Associates)

Poster Number: S25

Poster - Seismic Mapping of the Sun's Far Hemisphere for Applications in Space-Weather Forecasting

**Fontenla, John** (ANorthWest Research Associates)

Poster Number: S26

Poster - SERFS Status and Prospects

**Sharma, Swati** (Indian Institue of Technology Delhi)

Poster Number: S27

Poster - Localization of Dispersive Alfvén Wave in Solar Wind Plasmas and Turbulent Spectrum

**Goyal, Ravinder** (Indian Institute of Technology Delhi)

Poster Number: S28

Poster - Temporal evolution of linear kinetic Alfvén waves in inhomogeneous plasmas and effects of Landau damping

**Cherkos, Alemayehu** (Addis Ababa University)

Poster Number: S29

Poster - Effect of Viscosity on Propagation of MHD Waves in Astrophysical Plasma

**Green, Matthew; Hatt, Melinda; McAuliffe, Megan; Midzak, Natalie; Pozsonyi, Kristen**  
(Millersville University)

Poster Number: S30

Poster - Dependency of Magnetic Field of the CME on Other Physical Quantities on the Sun

**Orehek, Ashley; Piarulli, Kara; Prestine, Christina; Fink, Jessica** (Millersville University)

Poster Number: S31

Poster - Comparison of the GOES X-ray Data with EUVI Brightness of the Source Regions of the CME

**Thompson, Barbara** (NASA GSFC)

Poster Number: S32

Poster - Deriving Kinematic Properties of Asymmetric CMEs

**Thompson, Barbara** (NASA GSFC)

Poster Number: S33

Poster - CCMC and SWRC Space Weather Forecasting Services for NASA Robotic Mission Operators

**Johnson, Jeff** (NOAA/SWPC)

Poster Number: S34

Poster - Two Plots that Show the RTSW Data and the Status of Data Reception from RTSW Stations are Presented

**Codrescu, Stefan** (CU/CIRES, NOAA/NCEI)

Poster Number: S35

Poster - DSCOVR Space Weather Product Archive and Access at NCEI

**Cameron, Taylor** (University of Calgary)

Poster Number: S36

Poster - Determining Uncertainty In Solar Wind Timeshifting Methods

### **General Space Weather Services (Wednesday)**

**Costa, Joaquim** (INPE-National Institute for Space Research)

Poster Number: G1

Poster - The New Portal for Free Space Weather Data Distribution of the Embrace/INPE's Program.

**De la Luz, Victor** (National University of Mexico)

Poster Number: G2

Poster - Observations of Space Weather on Mexico

**Seaton, Daniel** (CIRES/CU and NOAA NCEI)

Poster Number: G3

Poster - NOAA's GOES-R Mission: Space Weather Instruments & Cal/Val Efforts

**Tilton, Margaret** (NOAA/CIRES)

Poster Number: G4

Poster - GOES-R Space Weather Data: Promoting Access and Usability

**Engell, Alec** (NextGen Federal Systems)

Poster Number: G5

Poster - Open-source Software and Operational Terrestrial and Space Weather Products

**Harvey, Joey** (Earth to Sky Calculus)

Poster Number: G6

Poster - Crowd-funding Space Weather Research

**Lamb, Aaron** (Earth to Sky Maritime)

Poster Number: G7

Poster - Applying Maritime Skills to the Space Weather Industry

**Silverwood, Curtis** (Millersville University)

Poster Number: G8

Poster - Spaced Out – A Monthly Online Program that Communicates Space Weather Events to the Public

**Perez, Ginger** (Earth to Sky Calculus)

Poster Number: G9

Poster - Earth to Sky

### **Magnetosphere Research and Applications (Wednesday)**

**Ngwira, Chigomezyo** (The Catholic University of America)

Poster Number: M1

Poster - Extreme Space Weather Events and their Implication for Geomagnetically Induced Currents

**Knipp, Delores** (University of Colorado Boulder)

Poster Number: M2

Poster - The May 23-26 1967 Great Storm and Radio Disruption Event: Extreme space weather and extraordinary responses

**Woodroffe, Jesse** (Los Alamos National Laboratory)

Poster Number: M3

Poster - The Latitudinal Variation of Geoelectromagnetic Disturbances During Large Geomagnetic Storms

**Kim, Kyung-Im** (Kyung Hee University)

Poster Number: M4

Poster - Application of HD/MHD numerical Modelling in Space Weather Issues

**McCollough, James** (Air Force Research Laboratory)

Poster Number: M5

Poster - Dynamic Modeling of EMIC Wave Activity in a Realistic Magnetosphere

**Haiducek, John** (University of Michigan)

Poster Number: M6

Poster - Magnetospheric Substorms using MHD and PIC

**Cilliers, Pierre** (South African National Space Agency)

Poster Number: M7

Poster - B-field Derived Proxies for Geomagnetically Induced Currents

**Zhang, Yongliang** (Johns Hopkins University, Applied Physics Laboratory)

Poster Number: M8

Poster - Polar Rain Energy Dispersion and Magnetotail Reconnection Location

**Pathak, Neha** (IIT, Delhi)

Poster Number: M9

Poster - Whistler Wave Interaction with Magnetic Islands and Electron Scale Structure Formation

**Jackel, Brian** (University of Calgary)

Poster Number: M10

Poster - Predicting Lognormal Distributions of Geomagnetic Time Derivatives

**Alonso Castro, Cata** (Earth to Sky Calculus)

Poster Number: M11

Poster - Space Weather Ballooning in the South Atlantic Anomaly

**Carlton, Ashley** (Massachusetts Institute of Technology)

Poster Number: M12

Poster - Telemetry Event Identification Algorithms for Space Environment Sensing

**Pettit, Joshua** (University of Colorado Boulder)

Poster Number: M13

Poster - Comparison of Two MEPED Electron Data Sets with Proton Contamination Corrections

**Cook, Michael** (University of North Dakota)

Poster Number: M14

Poster - Extreme Poytning Flux Over the Polar Cap Region

**Cress, Ryan** (United States Air Force Academy)

Poster Number: M15

Poster - High Energy Dosimetry

**Cress, Ryan** (United State Air Force Academy)

Poster Number: M16

Poster - Falcon Solid-state Energetic Electron Detector (FalconSEED)

**Tate, Jacob** (United State Air Force Academy)

Poster Number: M17

Poster - Comparing Methods of Measuring Space Weather Parameters

**Wilson, Gabriel** (United States Air Force Academy)

Poster Number: M18

Poster - Integrated Miniaturized Electro Static Analyzer (iMESA)

**Pothier, Nicole** (Electro Magnetic Applications, Inc.)

Poster Number: M19

Poster - A Spacecraft Charging Application of the AE9 Model Framework

**Gerrard, Andrew** (New Jersey Institute of Technology)

Poster Number: M20

Poster - Interior Spacecraft Charging of the Van Allen Probes

**Morley, Steven** (Los Alamos National Laboratory)

Poster Number: M21

Poster - The Global Positioning System Constellation as a Space Weather Monitor

**McMichael, Elizabeth** (NOAA/NESDIS/GOES-R)

Poster Number: M22

Poster - Preparing for GOES-R: Post-Launch Testing

**Boudouridis, Athanasios** (University of Colorado Boulder)

Poster Number: M23

Poster - Comparison of Matrix Inversion and Bow-tie Techniques in the Calibration of the GOES-R SEISS MPS-HI Electron Channels

**Henderson, Michael** (Los Alamos National Laboratory)

Poster Number: M24

Poster - The Geosynchronous Energetic Particle Environment During the Galaxy 15 Spacecraft Anomaly: LANL/GEO Observations

**Kellerman, Adam** (UCLA)

Poster Number: M25

Poster - Forecasting the Earth's Radiation Environment Using Physics-based Modeling and Data assimilation

### **Ionosphere / Thermosphere Research and Applications (Thursday)**

**Danskin, Donald** (Natural Resources Canada)

Poster Number: I1

Poster - Solar X-rays Effects on the Ionosphere

**Ebrahimi, Hamideh** (University of Central Florida)

Poster Number: I2

Poster - Remote Sensing of the Upper Atmosphere and Space Weather

**Meehan, Jennifer** (Utah State University)

Poster Number: I3

Poster - How to Utilize Scale Heights to Infer Information about the Topside Ionosphere

**Mabie, Justin** (CIRES)

Poster Number: I4

Poster - A research ionosonde in Antarctica

**Aa, Ercha** (National Space Science Center, Chinese Academy of Sciences)

Poster Number: I5

Poster - Regional 3D Ionospheric Electron Density Specification on the Basis of Data Assimilation

**Sergeeva, Maria** (Instituto de Geofisica, Unidad Michoacan, Universidad Nacional Autonoma de Mexico)

Poster Number: I6

Poster - Estimates of Ionospheric Conditions over Mexico Based on TEC Behaviour

**Groves, Keith** (Boston College)

Poster Number: I7

Poster - A Comprehensive Approach to Real-time Scintillation Specification

**Huang, Chaosong** (Air Force Research Laboratory)

Poster Number: I8

Poster - Empirical Models of Occurrence and Drift of Equatorial Plasma Irregularities and Scintillation

**Joshi, Dev** (Institute for Scientific Research, Boston College)

Poster Number: I9

Poster - Investigation of the Precursor conditions of Equatorial Plasma Bubble Irregularities with Oblique HF links

**Wu, Qian** (NCAR)

Poster Number: I10

Poster - TIEGCM Simulation of Equatorial Rayleigh-Taylor Instability

**Maute, Astrid** (NCAR)

Poster Number: I11

Poster - A New Model of the Three-dimensional Ionospheric Current System

**McGranaghan, Ryan** (University of Colorado Boulder)

Poster Number: I12

Poster - Determining Global Ionospheric Conductivity in the Satellite and Assimilation Age and Assessing its Influence on the Magnetosphere-Ionosphere-Thermosphere System

**Fernandez-Gomez, Isabel** (German Aerospace Center (DLR))

Poster Number: I13

Poster - Coupled Thermosphere Ionosphere Plasmasphere Electrodynamics (CTIPE) Physics Based Model during the Extreme Geomagnetic Storm on the 20th November of 2003

**Chen, Chia-Hung** (National Cheng Kung University)

Poster Number: I14

Poster - Ionospheric Data Assimilation with TIE-GCM and GPS-TEC during Geomagnetic Storm Conditions

**Chen, Wei-Han** (National Cheng Kung University)

Poster Number: I15

Poster - Ionospheric TEC Variations During the 2009 Sudden Stratosphere Warming by Assimilating F3/C RO and Ground-based GPSTEC

**Maruyama, Naomi** (NOAA)

Poster Number: I16

Poster - Ionosphere-Plasmasphere-Electrodynamics (IPE) Model and its Coupling to Whole Atmosphere Model (WAM) Toward Transitioning to Operational Space Weather Forecasting

**Hsu, Chih-Ting** (National Central University of Taiwan)

Poster Number: I17

Poster - Seasonal and Solar Cycle Dependence on Coupled Thermosphere-Ionosphere Ensemble Data Assimilation System for Ionospheric Forecast: FORMOSAT-3/COSMIC Observing System Simulation Experiments

**Lee, I-Te** (Central Weather Bureau)

Poster Number: I18

Poster - Role of Data Assimilation with a Ionosphere-thermosphere Coupled Model

**Fang, Tzu-Wei** (CU/CIRES)

Poster Number: I19

Poster - Impact of Lower Atmosphere on the Low-latitude Ionosphere Electrodynamics

**Gentile, Louise** (Air Force Research Laboratory)

Poster Number: I20

Poster – The Final Phase of the C/NOFS Mission

**Yudin, Valery** (University of Colorado)

Poster Number: I21

Poster - Drivers of Space Weather Events from Below: Tides and Wave Dynamics of Whole Atmosphere Models and Data Analysis

**Fedrizzi, Mariangel** (University of Colorado/CIRES and NOSS/SWPC)

Poster Number: I22

Poster - On the Validation of the Ionosphere-Plasmasphere-Electrodynamics (IPE) Model

**Fedrizzi, Mariangel** (University of Colorado/CIRES and NOAA/SWPC))

Poster Number: I23

Poster - Physical Modeling of Neutral Density for Satellite Drag

**Wu, Qian** (NCAR)

Poster Number: I24

Poster - What is Missing in the High Latitude Thermospheric Wind Simulations?

**Pilinski, Marcin** (ASTRA LLC.)

Poster Number: I25

Poster - Improved Orbit Determination and Forecasts with an Assimilative Tool for Satellite Drag Specification

**Yadav, Nitin** (Indian Institute of Technology Delhi)

Poster Number: I26

Poster - Turbulence and Particle Acceleration by Inertial Alfvén Waves in Auroral Ionosphere